Public Works (1901) Department.

G.O., No. 193-I.

DATED 28-6-1901.

[Despatch Abstract.]

Calingulah at the left flank of the Thenur Peria Kanmoi, Periyar System

An estimate, amounting to Rs. 3592 inclusive of establishment charges for reconstructing the ruined — sanctioned with remarks.

I.E.I. 1/8/2/8.
Indexed 3/7 3/7

Replaced as per 26-I 7/8/11-12

29.6.11

[P. W. O. 2,500—30-7-00.]

MCI 28/6/11

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Government of Madras.

PUBLIC WORKS DEPARTMENT.

IRRIGATION.
ACCOUNT.

Recd.	1911.	*Enclosures*
Regd.		*Spare copies*

G.O., No. 193 I., 28th June 1911.

Calingulah at the left flank of the Thenur Peria Kanmoi, Periyar System.

An estimate, amounting to Rs. 3,592 inclusive of establishment charges, for reconstructing the ruined —, sanctioned with remarks.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers :—

I

G.O., Nos. 960, 961 I., dated 13th December 1901.

Abstract.—Sanctioning an estimate of Rs. 2,250 for improvements to the Thenur Peria Kanmoi, a railway-affecting tank under the Periyár Project, and forwarding a copy of the Proceedings for the information of the Government of India.

II

Letter—from C. Mildred, Esq., a.m.i.c.e., Superintending Engineer, VI Circle.
To—the Chief Engineer for Irrigation.
Dated—Camp, Kodaikánal, the 15th May 1911.
No.—533-C.E.

I have the honour to inform you that the additional vented escape 62 feet long constructed at a cost of Rs. 825 in 1902, in Thenur Peria Kanmoi—a railway-affecting tank under the influence of the Periyár system—under an estimate sanctioned in G.O., No. 960 I., dated 13th December 1901, is reported to have breached owing to the bed of the run-off channel in rear of the escape having been scoured considerably more than was expected. I therefore forward herewith an estimate amounting to Rs. 2,550 for constructing a calingulah 72½ feet long on design M. No 245 of 1911, with a request that you will please obtain the sanction of Government to the estimate at an early date and approve the Executive Engineer's action in collecting materials in anticipation of sanction to the estimate, the work being of an urgent nature.

2. The work will be completed before 31st March 1912 and the original cost of the work which it is now proposed to replace, viz., Rs. 825, should be written back to the Revenue Account of the Periyár system, with reference to Public Works Department Code para. 1921.

Enclosures.

(i)

Report to accompany the estimate for reconstructing the collapsed calingulah at the left flank of Thenur tank.

	RS.
Amount of estimate	2,550

The calingulah which was constructed at a cost of Rs. 825 when the tank was improved during 1902–1903 has breached through owing to the insufficiency of the foundations, the bed of the surplus channel in rear having scoured out considerably more than expected, completely undermining the centre of the work.

2. The calingulah will be rebuilt as per plan accompanying. The design now provides for foundations on the best soil available and the foundations of the retaining wall of the lower apron have been carried to a depth slightly below the level of the cill of the road culvert

situated about quarter mile further down. This will prevent all danger of further scouring in the bed of the odai. The design is based on the personal instructions of the Executive Engineer on an inspection of the ruined weir.

3. The stones now at site in the existing work will be used for dry stone work in the new work and deduction of cost is made in the estimate. Data sheet in support of principal items is enclosed.

(ii)

Hydraulic calculations.

No. 19, *Thenur Peria Kanmoi, Periyár system.*

	SQ. MILES.
Combined catchment basin	18
Area of free basin	1·7

(1) Discharge to be provided for—

$CM^{\frac{2}{3}} - cm^{2/3} = 500 \times 18^{2/3} - 100 \times (16{\cdot}3)^{2/3} = 2{,}792$ cusecs.

(2) Discharge provided for—

(*a*) Existing calingulah, left flank—

Length of dam stones = 20 feet.

Length of vents = 62 feet.

Dam stones are fixed 0·90 foot below F.T.L.

Discharge—

(1) Over vents $= 3{\cdot}1\ Lh^{3/2} = 3{\cdot}1 \times 62 \times 3{\cdot}4 \times \sqrt{3{\cdot}4} = 1{,}206{\cdot}18$

(2) Over dam stones $= 3{\cdot}1 \times L \times h^{3/2} = 3{\cdot}1 \times 20 \times 2{\cdot}5 \sqrt{2{\cdot}5} = 245{\cdot}30$

Total ... 1,451·48

(*b*) New calingulah—

Length of dam stones = $10\frac{1}{2}' + 2'$ flanks = $12\frac{1}{2}$ feet.

Vent ways = No. 20 × 3′ = 60 feet.

Dam stones are proposed to be fixed same as sanctioned before, *i.e.*, 1 foot below F.T.L.

Discharge—

(1) Over vents $= 3{\cdot}1 \times 60 \times 3\frac{1}{2} \times \sqrt{3\frac{1}{2}} = 1{,}217{\cdot}40$

(2) Over dam stones $= 3{\cdot}1 \times 12\frac{1}{2} \times 2\frac{1}{2} \sqrt{2\frac{1}{2}} = 153{\cdot}16$

Total ... 1,370·56

Grand total of discharge in cusecs = 2,822·04

29th April 1911.

J. M. M. PARKER,
Executive Engineer, Madura division.

III

Memorandum R.O.C. No. 1338/11, dated 22nd May 1911.

With reference to letter No. 533-C.E., dated 15th May 1911, from the Superintending Engineer, VI Circle, forwarding, for sanction, an estimate of Rs. 2,550 for reconstructing a calingulah at the left flank of Thenur Peria Kanmoi, a railway-affecting tank, Periyár system, the Chief Engineer for Irrigation has the honour to inform the Superintending Engineer that pending sanction to the estimate which is under scrutiny in this office, he is authorised to proceed with the work, substituting in the case of the lower apron a rubble stone in mortar apron 2′ thick in place of dry packing 1′ 6″ thick on 6″ concrete as provided in the estimate.

2. The Executive Engineer's action in collecting materials in anticipation of sanction to the estimate, is approved.

H. E. CLERK,
Chief Engineer for Irrigation.

To the Superintending Engineer, VI Circle.

IV

Note by the Chief Engineer for Irrigation, R.O.C. No. 1338/11, dated 15th June 1911.

With his letter No. 533-E.I., dated 15th May 1911, the Superintending Engineer, VI Circle, submits an estimate amounting to Rs. 2,550 for reconstructing the calingulah at the left flank of the Thenur Peria Kanmoi, Periyár system.

2. It is stated that this calingulah, which was built in 1902 at a cost of Rs. 825 under an estimate amounting to Rs. 2,250 for improvements to the tank sanctioned in G.O., No. 960 I., dated 13th December 1901, has breached owing to the bed of the run-off channel in rear having been scoured out considerably more than was expected and that its immediate reconstruction is urgently required as the tank is a railway-affecting one.

3. The effective length of the proposed calingulah with dam stones 1 foot high is 72½ feet against 62 feet of the weir originally built.

In the design as submitted drystone packing 1½ feet thick over 6 inches concrete was allowed for the second apron. This has been replaced by rubble in mortar 2 feet thick.

4. It is observed that the Superintending Engineer has deducted from the estimate a sum of Rs. 119 representing the value of stones available at the site of the old work, which will be utilised on the proposed work. This procedure is incorrect as the present estimate will not then represent the actual cost of the new work. The deduction referred to has therefore been omitted from the estimate. The value of the stones should be properly credited to the Revenue Account of the Periyár system.

The amount of the estimate has been increased to Rs. 2,920 on account of the alterations referred to above.

5. It is recommended that the estimate as altered be sanctioned under the Open Capital Account of the Periyár system.

6. The Superintending Engineer has, in this office R.O.C. No. 1338/11, dated 22nd May 1911, been authorised to proceed with the work in anticipation of sanction to the estimate, as the work is reported to be urgent.

7. The original cost of the old work proposed to be replaced is Rs. 825, which should be written back by the Accountant-General from the Capital to the Revenue Account of the Periyár system.

H. E. CLERK,
Chief Engineer for Irrigation.

To the Joint Secretary to Government, Public Works Department,
(Irrigation), with the papers quoted in original.

Order—No. 193 I., dated 28th June 1911.

The following estimate is sanctioned:—

Imperial.
Capital Expenditure not charged to Revenue.
49. Irrigation.
Periyár System.
Open Capital Account.
I. Works.
3. Distributaries.
C. Works.
Unremunerative work.

Reconstructing the ruined calingulah at the left flank of the Thenur Peria Kanmoi.

Estimate—	RS.
I. Works	2,920
II. Establishment	672
Total ...	3,592

2. This sanction is registered as No. 26-I. of 1911–12 and will expire on the 31st March 1912.

3. The attention of the Superintending Engineer, VI Circle, is drawn to paragraphs 3 and 4 of the Chief Engineer's note above and that of the Accountant-General, Madras, to paragraph 7 thereof.

4. The action of the Chief Engineer for Irrigation in having permitted the Superintending Engineer to proceed with the work in anticipation of sanction to the estimate is approved.

(True Extract.)

H. E. CLERK,
Joint Secretary to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
,, Superintending Engineer, VI Circle, with plans and estimate.
,, Accountant-General, Madras.

Forwarded to the

(By Order.)

Deputy Registrar.

Read. 10/7/11

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E.I's Office.

CURR... 7011
PASSED ON BY
R. C.
U. R. C. 23/6
REP.
R. K.
D. O.

Note by the Chief Engineer

for Irrigation. 68

R.O.C. No. 1338/11 dt. 15-6-1911

With his letter No. 533-E.I., dated 15th May 1911, the Supg. Engineer, VI Circle, submits an estimate amounting to Rs. 2550 for reconstructing the calingulah at the left flank of the Thenur Peria Kanmoi, Periyar system.

2. It is stated that this calingulah, which was built in 1902 at a cost of Rs.825 under an estimate amounting to Rs. 2,250 for improvements to the tank sanctioned in G.O., No. 960-I., dated 13th December 1901 has breached -- ~~through~~, owing to the bed of the run off channel in rear having been scoured out considerably more than was expected and that its immediate reconstruction ~~as per plan now submitted~~ is urgently required as the

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the tank is a railway affecting one.

3. The effective length of the propos[ed] calingulah with dam stones 1 ft high is 72½ ft. against 62 ft. of the ~~as~~ weir originally built. ~~and has dam stones 1 ...~~ ~~high with its top at F.T.L. of the tan[k]~~ ~~Rubble in mortar, 2 ft. thick, has now been substituted for the~~ In the design as submitted drystone packing 1½ ft. thick, over 6" concrete was allowed for the 2nd apron ~~in the design, submitt...~~ this has been replaced by rubble in mortar 2 feet thick.

4. It is observed that the Superintending Engineer has deducted from the estimate a sum of Rs.119 representing the value of stones available at the site of the old work, which will be utilised on the proposed work. This procedure is incorrect as the present estimate will n[ot] then represent the actual cost of the work. The deduction referred to has therefore been omitted from the estima[te]. The value of the stones should be properly credited to the Revenue Account of the Periyar system.

The amount of the estimate has be[en] increased to Rs.2,920 on account of th[e] alterations referred to above.

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5. It is recommended that the estimate as altered be sanctioned under the Open Capital Account of the Periyar System.

6. The Supg. Engineer has in this -- office R.O.C. No.1338/11 dated 22nd May 1911 been authorised to proceed with the work in anticipation of sanction ~~of~~ to the estimate as the work is reported to be urgent.

7. The original cost of the old work proposed to be replaced is Rs.825, which should be written back by the Accountant General from the Capital to the Revenue Account of the Periyar System.

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DEI

31-5-1911

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EI

To

The Joint Secretary to Govt.
P. W. D. I
with the current file

31.5.11

13

SUBJECT.—Estimate of Rs 2920 (for works) for reconstg the ruined Calingulah at the left flank of the Thenur Peria Kanmoi, Periyar System.

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PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Flag A.

READ again the following

~~G.O. No 860-I dy 13.12.1901.~~ Quote with abstract

Read also

From the Supg Engr., VI Circle, dy 15.5.11, No 533CE
Do — do — dy 22.5.11, Roc No 1338/11
Note by the Chief Engr: for Irrgn dy 15.6.11, Roc No 1338/11

Print Report
Print Hydraulic calculations—

Order No 193-I. Dy 28-6-1911

The following estimate is sanctioned:—

Imperial.

Capital Expenditure not charged to Revenue.

49—Irrigation.

Periyar System.

Open Capital Account.

I Works.

3. Distributaries.

C—Works.

Unremunerative Work.

193

Print Report

F.E.D.

CS

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Reconstructing the ruined calingulah at the left flank of the Thenur Peria Kanmoi.

Estimate –

	Rs
I Works	2920
II Establt	672
Total	3592

2. This sanction is registered as No 26-I of 1911-12 and will expire on the 31st March 1912.

3. The attention of the Supg: Engr:, VI Circle is drawn to paras 3, 4 of the Chief Engineer's note above and that of the Acctt Genl, Madras to para 7 8 thereof.

4 The action of the Chief Engineer for Irrigation in

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having permitted the Supt. Engr: to proceed with the work in anticipation of sanction to the estimate is approved.

31.5.11

Issue

31.5.11

Issue.

15/6/11

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To

The Chief Engr: for Irrign.

The Supt. Engr:, VI Circle with plans & Este, ✓ Dyo 1/7/11 S.C. Desp. 6.8.11.

The Acctt Genl, Madras

Ordinary Covers

Despatched on 6.8.11

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